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Commissioner for Patents
United States Patent Application No. 10/812,446

REMARKS

Reconsideration of this application is respectfully requested.

Claim Objections

Claims 4 and 12 were objected to because of a typographical error. Each occurrence of the misspelled "wring" is amended to read --wing--, and the objection to claims 4 and 12 is traversed.

In addition, the following informalities were corrected: claims 8 and 15 are amended to replace "The" (first word) with --A--; in claim 8, line 4, "the underside" is amended to read --an underside-- for proper antecedent; and, in claim 19, line 17, "the wellhead" has been amended to read --the wellhead system-- for consistent use of terminology.

Claim Rejections – 35 U.S.C. § 102

The Office Action rejected claims 1-16 under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 1988442 to Begg.

Begg teaches an oil well casing head in which the packing is entirely enclosed within the head when assembled, yet which can be adjusted externally without disassembling any part of the head or the flow lines connected thereto (page 1, col. 1, lines 15-20). A base member is connected to an upper member by a pipe coupling (page 1, col. 1, lines 52-54). Detachably secured to the [base] member 13 preferably by screw threads is a bonnet 35 in which is threaded a plurality of set screws 36 that engage a lateral flange 37 formed on the base portion of member 14. The bonnet and set screws provide means for connecting the two members together ... (page 1, col. 2, lines 43-50). The bonnet 35 may be manually turned on the threads formed on the base member (page 2, col. 1, lines 1-2). The upper end of the fitting 49 is externally threaded as indicated at 58 for connection with the usual Christmas tree or flow lines (page 2, col. 1, lines 31-33).

Applicants respectfully traverse the rejection of claims 1-16. Claim 1, for example, calls for a plurality of tubular heads, each supporting a mandrel for suspending a tubular string in the well. Each mandrel is secured to the tubular head that supports it by a threaded union, and each mandrel supports one of the tubular heads or an adapter flange for connecting production equipment. The Office Action asserts that base member 13 and upper member 14 correspond to the tubular heads of claim 1. Under this assumption, however, Begg does not disclose or teach two mandrels that are connected by threaded unions to base member 13 and upper member 14 and from which tubular strings are suspended in the well. Casing 40 is suspended in the well from slips 39. As is well understood in this art, slips 39 secure casing 40 at the gripping surfaces of the slips so that as casing 40 pulls the slips down onto a tapered seat 38 in member 14, the slips and the casing are secured from movement in the downward direction on the tapered seat. Even if slips 39 could correspond to the claimed mandrel, the slips are not secured to member 14 by a threaded union. For at least this reason, claim 1 is allowable over Begg.

Independent claim 8 calls for independently secured tubular heads for supporting respective mandrels that support respective tubular strings in a wellbore. A plurality of threaded unions threadedly secure the respective mandrels to the tubular heads. At least one of the mandrels supports one of the tubular heads, which is secured to that mandrel by a threaded union. Again assuming the position taken in the Office Action that base member 13 and upper member 14 of Begg are tubular heads as called for by the claims, Begg neither discloses nor teaches a mandrel that is secured to a tubular head by a threaded union, supports a tubular string in the wellbore, supports a tubular head and is secured to that tubular head by a threaded union. For at least this reason, independent claim 8 is allowable over Begg.

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Independent claim 13 calls for a method of completing a low-pressure well comprising securing two mandrels to respective tubular heads by respective threaded unions, where each mandrel supports a tubular string in the well. One of the mandrels is secured to both tubular heads by respective threaded unions. Again assuming the position taken in the Office Action that base member 13 and upper member 14 of Begg are tubular heads, Begg fails to disclose or teach a mandrel that supports a tubular string in the well, that is connected to one tubular head by a threaded union and that is connected by another threaded union to another tubular head to which, in turn, is secured a mandrel that supports a tubular string in the well. More specifically, the Office Action asserts that base member 13 and upper member 14 correspond to the claimed mandrels. Even accepting this assumption, however, base member 13 is not attached to itself by a threaded union, and upper member 14 is not connected by respective threaded unions to one tubular head that supports a tubular string in the well and another tubular head to which is secured another mandrel and tubing string. For at least these reasons, Applicants request that the rejection of claim 13 over Begg be withdrawn.

Independent claim 15 calls for a method of completing a low-pressure well, including landing a wellhead onto a conductor assembly. The wellhead secures and suspends a surface casing the well. A casing mandrel is secured to the wellhead using a first threaded union. The casing mandrel secures and suspends a production casing in the well.

The Office Action asserts that base member 13 in Begg corresponds to the claimed casing mandrel and that outer casing 10 corresponds to the claimed conductor assembly. Even under this assumption, however, Begg does not disclose or teach a wellhead landed onto casing 10 and secured to base member 13 by a threaded union.

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Moreover, Applicants submit that Begg fails to disclose or teach a structure that meets the limitations regarding the casing mandrel as set forth in claim 15.

Applicants note that the Office Action refers to “a tubing head spool, at openings 41, threadedly secured to the casing mandrel.” At page 2, column 1, lines 7-9, however, Begg explains that vent pipes 43 are “[t]hreaded in oppositely disposed openings 41 formed in the member 14 that communicates with recesses 42 formed in seat 38.”

Claims 2-7 and new claim 23 depend from independent claim 1. Claims 9-10 and 12 depend from independent claim 8. Claim 14 depends from independent claim 13, and claims 16-18 depend from independent claim 15. These dependent claims recite further limitations and are allowable in their respective combinations.

Claim 11 is cancelled as redundant in view of the amendments made to claim 10.

Allowable Subject Matter

Applicant gratefully acknowledges that claims 19-21 are allowed.

Applicant further gratefully acknowledges that claim 18 would be allowable if rewritten in independent form. However, for reasons set forth above in detail, it is respectfully submitted that claims 15-18, as amended to correct typographical errors, are in a condition for allowance.

New claim 22 has been added to further define the method claimed in allowed claims 19-21. New claim 24 is allowable over Begg at least because Begg fails to disclose or teach the claimed arrangement of threaded unions and mandrels.

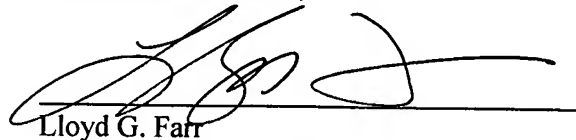
The description has been reviewed and amended to correct minor typographical errors in paragraphs [0015] and [0058]. No new matter has been added.

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In view of the above-noted amendments to the description and the claims, this application is now considered to be in a condition for immediate allowance. Favorable reconsideration and early issuance of a Notice of Allowance are therefore requested.

Respectfully submitted,

NELSON MULLINS RILEY
& SCARBOROUGH, L.L.P.

A handwritten signature in black ink, appearing to read "L. G. Farr", is written over a horizontal line.

Lloyd G. Farr
Registration No. 38,446

1320 Main Street
Columbia, SC 29201
(404) 817-6165
Fax (803) 255-9831